

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A photosensitive polymeric network, comprising an amorphous network ~~and a photoreactive component~~, the amorphous network comprising a matrix component, which is transparent for ultraviolet light and has elastomeric properties, the matrix comprising at least one of an acrylate material and a methacrylate material, and a photoreactive crosslinking component able to undergo a reversible reaction upon stimulation with ultraviolet light.
2. (canceled).
3. (previously presented): A photosensitive network in accordance with claim 1, wherein the photoreactive component is copolymerised with the amorphous network.
4. (previously presented): A photosensitive polymeric network in accordance with claim 1, wherein the photoreactive component is not copolymerised with the amorphous network.
5. (previously presented): A photosensitive polymeric network in accordance with claim 4, wherein the polymeric network comprises an amorphous network and a photoreactive component, physically admixed therewith.
6. (canceled).
7. (previously presented): A photosensitive polymeric network in accordance with claim 1, wherein the photoreactive component is a component able to undergo a reversible photodimerization.

8. (canceled).
9. (previously presented): A photosensitive polymeric network in accordance with claim 1, wherein the photoreactive component is copolymerized with the amorphous network in the form of an acrylate compound or wherein the photoreactive component is physically admixed with the amorphous network in the form of a polymer or oligomer having at least three photoreactive groups.
10. (previously presented): A process for preparing a photosensitive polymeric network of claim 1, comprising polymerizing a matrix component with a crosslinking component and the photoreactive components or, polymerizing a matrix component with a crosslinking component followed by admixing the photoreactive component with the amorphous network.
11. (previously presented): A medicinal material for transportation of and for targeted release of drugs or diagnostic agents, comprising the photosensitive polymeric network of claim 1.
12. (withdrawn): A photoreactive component, comprising an oligomeric or polymeric scaffold with at least three terminals, wherein each terminal comprises a photoreactive group.
13. (withdrawn): A photoreactive component according to claim 12, wherein each photoreactive group is a group able to undergo a reversible photo dimerization.
14. (canceled).
15. (canceled).
16. (canceled).
17. (canceled).

18. (withdrawn): A process for programming a photosensitive polymeric network, comprising:
providing a sample of a photosensitive polymeric network comprising photoreactive groups, wherein the photoreactive groups are not present in photodimerized form;
deforming the sample;
irradiating the sample with light having a wavelength initiating the photodimerization of the photoreactive groups; and,
relaxing the sample.
19. (canceled).
20. (canceled).
21. (previously presented): A process for preparing a medicinal material for transport and targeted release of drugs or diagnostic agents, wherein the medicinal material comprises a photosensitive polymeric network of claim 1, comprising the steps of:
polymerizing a matrix component with a crosslinking component and a photoreactive component, or
polymerizing a matrix component with a crosslinking component followed by admixing a photoreactive component with an amorphous network.
22. (previously presented): The photosensitive polymeric network of claim 6, wherein the matrix component is based on at least one of a C₁- to C₆-acrylate and a C₁- to C₆-methacrylate.
23. (previously presented): The photosensitive polymeric network of claim 22, wherein the matrix component is based on at least one selected of the group consisting of hydroxyethyl acrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, poly(ethylene glycol)methacrylate and n-butyl acrylate.

24. (previously presented): The photosensitive polymeric network of claim 23, wherein the matrix component is a co-polymer of n-butyl acrylate and hydroxyethyl methacrylate.
25. (previously presented): The photosensitive polymeric network of claim 24, wherein the co-polymer has a mol ratio of n-butyl acrylate to hydroxyethyl methacrylate within the range from 10 : 0.1 to 10 : 5.
26. (previously presented): The photosensitive polymeric network of claim 6, wherein the crosslinking component is at least one of a diacrylate compound and a dimethacrylate compound.
27. (previously presented): The photosensitive polymeric network of claim 26, wherein the crosslinking component is at least one selected from the group consisting of ethylene diacrylate, poly(oxyethylene)diacrylate, poly(propylene)diacrylate and poly(propylene glycol)dimethacrylate.
28. (previously presented): The photosensitive polymeric network of claim 5, wherein the polymeric network comprises an amorphous network and a photoreactive component, wherein the photoreactive component is able to undergo a reversible photodimerization to form the inter-penetrating part of an inter-penetrating network.
29. (new): A photosensitive polymeric network comprising:an amorphous network, the amorphous network comprising a matrix component, which is transparent for ultraviolet light and has elastomeric properties, and a photoreactive crosslinking component able to undergo a reversible reaction upon stimulation with ultraviolet light, wherein the photoreactive component is selected from the group consisting of a cinnamic acid ester compound, a cinnamyl acid ester compound, cinnamylacyl acid, ortho-substituted cinnamic acids, cinnamyloxysilanes, and 1,3-diphenyl-2-propene-1-one, 4-methylcoumarin.